HOW URBAN DESIGNERS PERFORM: AN INTERNATIONAL PERSPECTIVE ON ACTUAL PRACTICE

Olgu ÇALIŞKAN*

Received: 01.08.2014; Final Text: 23.12.2014

Keywords: Urban design practice; design thinking; design aspects in urbanism and design environment.

1. See: Urban Design (Quarterly), the periodical that is published by Urban Design Group based in London; a series of publications made by The Commission for Architecture and the Built Environment (CABE) in the UK (CABE, 2006; The Forum + Institute for Urban Design, 2013).

2. The survey was held in 2011 during the doctorate research of the author, under the title of 'Pattern Formation in Urbanism' pursued at TU Delft, Faculty of Architecture, Department of Urbanism, Delft, the Netherlands, with the financial supports of Turkish Higher Education Council and the Dutch Ministry of Education, Culture & Science via NUFFIC programme.

3. Mainly in terms of the type of design projects engaged, the current staff capacity they have, reputation and the average project budget that the offices work with.

INTRODUCTION

Despite the serious development of the domain of design review in urbanism (1), which mainly concerns design outcomes, a systemic outlook that would specifically focus on the fundamentals of design process and the professional performance of designers has yet to be established in urban design theory. Therefore, as pointed out by Loew (2012, 1), the basic question, "who are urban designers?" still remains valid, along with another question, namely: "Have different countries developed their individual approaches or is there an international 'school' of urban design?" As he argues, a clear answer to these questions requires comprehensive analyses of the current practice within the field (Loew, 2012, 2).

Regarding the continuing claim of urban design as an emerging discipline in its own right, at the intersection of architecture, planning and other related professions, (Lang, 1994; Schurch, 1999), one could easily assert the need to draw out the specific features of urban design practice characterising the field as a recognised profession within the contemporary design circle. The emergence of a research agenda focusing on actual practices (Lang, 2005; Loew, 2012), in this regard, could also be considered critical to acquire the applied knowledge of professional practice for a better understanding of design thinking in urbanism, as well (Çalışkan, 2012).

To gain insight into the actual performance of urban designers, the paper presents a comparative framework as the outcome of an international study conducted in the United Kingdom, the Netherlands and Turkey (2). Using a series of interviews, project reviews and a questionnaire, the study intends to specify the main components involved in actual urban design process. In order to achieve a general perspective on the issue, design offices representing mainstream profiles (3) within their countries are specifically selected for the survey. In this context, fifteen designers were involved in the research (4) (Figure 1).

^{*} Department of City and Regional Planning, METU, Ankara, TURKEY.

4. The list of designers who involved into the research is as follows: Dan Hill (Urban Initiatives, London, the UK), John Phillips (LDA Design, London, the UK), Natalia Trossero (John Thompson & Partners, London, the UK), Jason King (PRP Architects, London, the UK), Schmidt Bob (Halcrow, London, the UK), Rob van der Velden (Atelier Dutch BV, Almere, the Netherlands), Merel Bakker (BGSV, Rotterdam, the Netherlands), Leonie Rupert (Palmbout Urban Landscapes, Rotterdam, the Netherlands), Hans Peter van Schooneveld (Kuiper Compagnons, Rotterdam, the Netherlands), Ria van Dijk (Municipality of Almere, Department of Urban Development Project Office, the Netherlands), Devrim Çimen and Sertaç Erten (Sekiz Artı Mimarlik ve Kentsel Tasarim, İstanbul, Turkey), Banu Aksel (BC Kentsel Tasarım ve Mimarlık, Ankara, Turkey), Can Kubin and Zeynep Eraydın (PROMİM Cevre Düzenleme Kentsel Tasarım, Ankara, Turkey), H. Oguz Aldan, (H. Oguz Aldan Sehir Planlama, Ankara, Turkey) and Figen Moran (TOKI, Ankara, Turkey).

Figure 1. The designers involved in the comparative study. (Courtesy of all the participant designers)



The distinct cultural backgrounds of urbanism that exist in the three countries together with changing conditions within different legal and administrative frameworks are assumed to have influenced design practice. The point is that the central objective of the research, in this sense, is not to achieve a normative conclusion on the relative quality of the design outputs through a critical assessment, but to discover the shared and the (contextually) specific aspects of design thinking in the practice of urban design.

In this framework, the main aspects to be respectively discussed in the following sections could be given as follows:

- General profile of the design teams
- External variables of the design process (design environment)

5.The weak tendency of designers for a systemic documentation of (intermediate) design products represents another challenge within design research. Designers do not usually consider their intermediate design products essential to clarify their original idea at the end of the process. This is because the intermediate sketches and working-models are mainly utilized as the tools for internal communication in design rather than the external one pursued with the third parties involved.

• Means and conceptions in design thinking

The guiding principle(s) of design The form-concepts shaping the design idea The morphological parameters utilised in form-composition The preliminary phases of design The levels of abstraction in design The levels of detail at which the design solutions are defined Generation of alternative solutions in design Use of precedent in design 'Type' in design The basic tools to control forms and patterns

• Description of the design form.

Presenting the findings of the survey within the given thematic structure, a brief evaluation of the results will be elaborated from a wider perspective in the conclusion. At the end, in addition to the possible reasons behind contextual differences in design thinking, conceptual correspondences (or discrepancies) between urban design theory and practice will be discussed.

A COMPARATIVE STUDY ON URBAN DESIGN: THE CASES OF THE UK, THE NETHERLANDS AND TURKEY Method of the research

As argued by Lawson (1980), design studies can be classified into two groups:

- direct observation of the designer's act in controlled laboratory conditions over a certain period of time,
- retrospective reflection on the designer's performance via interviews and analyses [of design outcomes] without any direct involvement in the individual design environment (Lawson, 1980, 288).

Admittedly, due to the nature of the urban design process, which usually covers a long time span under the influence of various parties and external factors, fully controlled design protocol studies are not practical in the context of urbanism. Bearing this point in mind, the current study posits itself within the second genre defined in the methodological classification of Lawson (1980). Accordingly, the study focuses on one exemplary project from each design group, and the participants are required to reflect on the original design process as a kind of post-evaluation of action.

However, "designers are notoriously good at post-hoc rationalisation of their processes" (Lawson, 2004, 16). This means designers tend to rationalise what they did even unconsciously or intuitively by creating explicit reasons as if they had been considerations in the design. But this would be a misleading representation of the actual design process. To overcome this methodological drawback, in addition to the interviews conducted with each designer, the author analysed the design processes by examining intermediate design products, sketches, working models and postscripts, as much as had provided for the review by the designers (5). On the basis of this series of drawings and notes, there is an opportunity that could be taken to test the relevance of the oral inputs given in the personal interviews.

To make a consistent comparison of the design teams, similar types of urban projects must be reviewed. Therefore, in order to reveal the **Table 1.** The scale levels of the sampling projects. R represents the nominal radius value.

	UK	NL	TR
District (R= 1 km)	1	-	1
Neighbourhood (R= 300 m)	4	3	2
Urban ensemble (R= 100 m)	-	2	2

	UK	NL	TR
District (R= 1 km)	1	-	1
Neighbourhood (R= 300 m)	4	3	2
Urban ensemble (R= 100 m)	_	2	2

Table 2. The types of projects sampled.

performance conditions of the designers on a common basis, large-scale development projects which offer a certain level of flexibility to designers through various form compositions have been selected. Accordingly, the range of the projects covers plans on scale levels from ensemble to district (**Table 1**). While district-level urban projects are in the type of new settlements having complete functional programme, the design schemes at the ensemble level are mainly the infill projects within existing urban fabric (**Table 2**).

Accordingly, most of the design works are made for urban extensions or inner-city redevelopments at the level of a neighbourhood. The distribution of the project types and their scale levels provide an idea of the common type and level of contemporary urban design in the three countries as well.

General profile of the design teams

Though each project is the expression of a single designer (mostly the team leader), all of them are the products of group work. The reviewed design teams are characterised according to their disciplinary composition, size, budget and the average time spent for a design project, below.

In general, architecture, urban planning and landscape architecture are considered the main professions active in the field of urban design (Schurch, 2007). The result of the survey indicates that practitioners calling themselves "urban designer" (rather than planner or architect) have a remarkably similar ratio in these countries. Composition of the design teams, moreover, displays a rich heterogeneity in these professions (**Table 3** and **Figure 2**).

In addition to equal shares of architects, planners and urban designers, we see a remarkable involvement of other professionals such as engineers, project managers, 3D-modellers and illustrators in the British design groups. In the Dutch context, urban designers seem to lead the field together with landscape architects. Significantly, architects and planners

	UK	NL	TR
Architect	5	2	2
Urban planner	5	2	7
Urban designer	3	16	6
Landscape designer	5	14	1
Graphic designer	2	2	-
Other	7	2	1
TOTAL	27	40	17

Table 3. Distribution of experts having different professional backgrounds in the five design teams from each national context.



have a little (10 percent) share in total. In the dissimilar Turkish case, urban

design teams are highly dominated by planners (together with urban

Considering the hybrid situation depicted above, it would be difficult to

argue the validity of the definition, of urban design as an [autonomous]

discipline and profession (Lang, 1994), since numerous major disciplines

of architecture, planning and landscape design still take have an active role in actual practice. Nevertheless, it would not be wrong to claim that the remarkable position of 'urban designers' in the professional compositions depicted above makes the argument likely to be valid in near future (6).

designers), along with a small ratio of architects (12 percent).

Figure 2. The ratios of the different professions involved in the reviewed projects.

6. It should be noted that despite their informal identification, urban designers have no legally recognised affiliation in the three countries. So all of the participants who call themselves urban designer have an educational background either in city planning, architecture or any other relevant disciplines prior to the master's degree received in urban design.

Along with a relatively more balanced disciplinary composition within the British urban design groups, they are larger than their Dutch and Turkish counterparts, on average. The Turkish offices employ the smallest project groups (**Table 4**) Taking this point together with the nature of group compositions, we could claim that the larger the size of the design teams, the greater the tendency that a more diverse pattern of specialisation within the groups is observed.

Then is there any relation between the group size and the average time period for the completion of a project commissioned?

Looking at the sampling cases, we see an inverse relationship between those factors in the case of the Dutch and British offices. Despite acting in smaller groups than those of their British counterparts, on average, the Dutch designers invest a longer time period on a single project. Interestingly, despite comprising the minimum number of staff in teams, the Turkish design groups perform within the shortest time period in the range (**Table 5**).

The time period spent on a project could be considered as a factor on the quality of design, since designers could take advantage of extra elaborations of design solutions. This figure could be also taken as an indicator of the settled perception on the role of design within total project

UK	NL	TR
8.2	4.8	3.4

UK (months)	NL (months)	TR (months)
14	20	3.5

Table 4. The average size of the design teams.

Table 5. The average time period of the projects reviewed.

	UK (thousand €)	NL (thousand €)	TR (thousand €)	
Fable 6. Average size of project budgets.	225	110	35	

7. The amount of the budgets is calculated in accordance with the currency rates in the time of the research conducted.

8. Admittedly, this point should be considered with the fact that the higher portion of the budget released by the project owner is mostly provided after the completion, not during the design process. This issue was not involved in the related section of the questionnaire. development processes. From this perspective, considering rather shorter time periods commissioned, one could argue that urban design in Turkey is regarded as a routine procedure to be fulfilled within a minimum time span, unlike in the UK and the Netherlands where design has a wellestablished, invested and esteemed cultural position as a profession (Thomas, 2008; Christopher, 2013).

Another key factor characterising the profile of the urban design teams is the average budget size provided for the projects engaged. As argued by Asimov (1962, 33), the project budget (with the time factor) significantly restricts the performance of designers. In this context, it is seen that the average budget of the reviewed design projects in the UK is twice as high as its Dutch counterpart. More noticeably, the Turkish design offices have to operate with 15 percent of that amount on average (7) (**Table 6**).

However, this figure should not mislead us. When we take the average amount of the budget per month, we see that the Turkish offices perform with a budget that is about twice as high than their Dutch counterparts during the assigned project period (8). There is no doubt that all those factors should be taken into consideration when the performance of urban designers is assessed in a comparative framework.

External factors within design process: design environment

To reveal the complex nature of urban design (as an open system under the dynamic influence of external factors), the designers were asked about the kind of stakeholders and the corresponding constraints involved in the actual design process. In this way, the external limitations on the designer's own creative acts should be specified. In this context, three types of stakeholders and the six basic design aspects were determined as the main external factors in urban design practice (**Table 7**).

Since the type of active stakeholders and the design aspects under their influence varies widely according to the particular project, each design team displayed a particular combination (of stakeholders and the aspects specifically controlled by them), which is hard to map out as a generalisable pattern. Nonetheless, some common features have been recognised for projects from the same national context: Participants from the Netherlands and the UK noted that in projects where the main commissioning entity is a local government, public planning agencies tend to control almost all the aspects including the building styles selected in the project. In Turkish context, this influence is rather limited to the

The stakeholde design decision	eholders influencing the ecisionsThe design aspects subject to be controlled by each stakeholder		sign aspects subject to be led by each stakeholder
Client Local agence Local	–i.e. land developer- government /planning y community	•	Functional program Land-use & activity composition Form composition Building types Density level(s) Architectural and urbanistic style

Table 7. The stakeholders taking part in the design process and the set of design aspects involved.

	UK	NL	TR
Local government	2	3	3
Housing cooperation	1	-	1
Private land developer	1	2	-
Housing agency	1	-	1

 Table 8. Commissioning agencies of the projects.

functional programme in terms of only land-use and density. Unlike the Dutch and British context where the major motivation behind the extensive institutional control over design is reported as a result of enduring governmental and commercial concerns over the issues of lifestyle and marketability, the weak external limitation on design form in the Turkish case is a result of the lack of urban design control within the current planning system in Turkey (Ünlü, 2011).

The weighted distribution of projects based on the type of commissioning agency would represent the relative positioning of urban design in the public and private domain. In all sampled cases, urban design is observed as a kind of service activity predominantly pursued by public agencies (**Table 8**).

Especially in the Netherlands, where private land developers are active in the housing sector, it is observed that the offices working for their private clients were under the (either direct or indirect) influence of the local governments during the process of site development. That point signifies the enduring primacy of public interest within the design practice of urbanism, which is consistent with the settled theoretical conception of the field (Barnett, 1974; Günay, 1999).

In addition to the stakeholders involved, the given urban constraints under which the designers operate influence the overall design performance as well. The distribution of major factors in accordance with the number of entries that the author recorded in the questionnaires provides a general view on that (**Table 9**).

As seen in the designers' feedback, higher plan orders are specified as the major external constraints on design decisions in both the Dutch and British contexts. This implies the notion of a planning hierarchy from strategic plan to compositional design, in European urbanism. In the Turkish case, standard development codes and specific site conditions are the foremost factors influencing design. Urban designers in Turkey are not usually expected to produce special design codes but to operate with standard rule sets given by national development law. Apart from this, the weak influence of community opinion on design is evident in all cases. This would be taken as an indicator of the low actual correspondence of participatory planning theories in design practice. Finally, despite the central idea of the strong relationship between land ownership and urban

	UK	NL	TR
Planning codes and regulations	1	3	4
Higher-level plan orders	5	4	3
Site specificities	3	3	4
Ownership pattern	-	-	-
Developers' interests	-	-	2
Community opinion	1	1	1

Table 9. Major external constraints ondesigned urban form and patterns.

9. For this analysis, the open-source software called "Wordle" is utilized. (Feinberg, 2011)

design (Günay, 2000), the ownership pattern in practice is not held to be a key aspect influencing the design process. This is mainly due to the fact that most urban design schemes are defined on large tracts of land on which the potential conflicts in property relations are mostly resolved at the planning level before designers are commissioned for project development.

Means and conceptions in design thinking

In the second part of the analysis, the study focuses on the internal design environments that the designers built up based on their personal design knowledge. Before focusing on the principal means for design (i.e. phasing, abstraction, detailing, precedence and type), research will tend to reveal the current state of art in the design conception in urban design practice. Since concept generation is regarded as essential to inform alternative ways of handling problem and solution space in urban design (Moughtin et al., 1999, 99), a discourse analysis is introduced to assess conceptual capacity of design thinking in practice.

With the analysis, the key design principles, form concepts and the metric variables used in design work are specified through examining project reports and interview records. In order to map out the weighted priorities of the concepts, the designated terms have been processed via a visualisation technique called a "word cloud" (9). In this way, the relative frequency of the concepts could be illustrated.

The guiding principle(s) of design

In terms of the level of diversity in the key principles guiding the design process, the British and the Dutch designers demonstrate the same level



Figure 3. The guiding principles specified within the sampling urban projects from the UK (top), the Netherlands (middle) and Turkey (bottom). The weighted visual representation of the terms is based on their calculated frequency in use. of conceptualisation with exactly the same number of entries recorded, twenty-seven in total. This value falls short in the context of the Turkish designers, with seventeen tags. The specific set of the working principles within each national context illustrates the particular agenda of planning and design profession in each country (**Figure 3**).

Looking at the internal thematic variation of the concepts, one could see that the principles mentioned by the British urban designers focus around the notion of local sustainability. With related concepts such as *ecology*, *nature* and *accessibility*, the consideration of both environmental and social sustainability occupy the prevailing position in the minds of designers in the UK.

Though being expressed in different terms, the major design agenda of the Dutch designers looks similar to that of their British counterpart. Yet unlike the British case, the Dutch designers emphasise 'local identity' much more clearly along with the complementary concepts like 'blue and green', picture quality' of a 'village-like environment' and 'rural character'. Such a 'rustic' interpretation of urban sustainability can be taken as a result of the long history of the Dutch urbanism evolved on the continual creative interaction between man, land and water (Cammen, 2013).

Apparently differently to the other two, the set of design principles cited by the Turkish designers reveal rather a functionalist outlook through the highlighted terms such as 'use', infrastructure' or 'supply'. The concepts outlining the idea of place identity in the light of spatial perception and patterns of human activity are not traced in the argumentations of the Turkish designers.

Concepts shaping design ideas

In the second part of the discourse analysis, the major form concepts that characterise the designed urban compositions are comparatively revealed (**Figure 4**). The given sets of concepts provide an idea of the limits of the designers to conceive design morphology on which they operate through articulation of urban form.

In this context, the richest conceptual set belongs to the Dutch designers reviewed. In interviews, it was observed that the Dutch designers were all prone to design according to concepts. *Diversity/variety, continuity, hierarchy, unity* and *legibility*, in this context, are reported as the most common concepts utilised by all the three national groups of designers. However, it is seen that prominent form concepts which are still popular in the contemporary urban design literature, such as *complexity* (Jacobs, 1961; Alexander, 1966), *(network) integration* (Hillier and Hanson, 1984), *coherence* (Alexander et al., 1987; Salingaros, 2000) and *robustness* (Bentley et al., 1985), are not seen acknowledged as being within the conceptual toolbox of the designers.

The revealed differences basically reflect the contextual peculiarities of the general concerns to which the designers are responding. For instance, in the British context, where one major design agenda is to alter conventional residential layouts (Young, 2010), concepts for open, connective and legible urban patterns have gained in importance (Loew, 2012, 10). For the Dutch case, in accordance with the actual tendency occurring in the Netherlands since the 1990s (Wagner, 2008), the major concern of the designers seems to respond to the emerging market demand for (spatial and architectural) *diversity* and *flexibility* within living environments. Whereas in the Turkish



context, where the highly standardised type of urban tissues composed in a fragmented way are prevailing (Ünlü, 2011), designers tend to emphasise concepts such as *diversity within unity, spatial hierarchy* and *continuity,* which are supposed to yield a new legible urban image by design.

The morphological parameters utilised in form composition

Finally, variation of the variables involved in the morphological definition of design solutions can be regarded as another quality indicator in design thinking (Carmona, 2001, 214-6). Here again, in this respect, we see another point of disparity between the groups of designers reviewed (**Table 10**).

The amount of form variables actively utilised in the description of design by the British designers is noticeably higher than those of the Dutch and Turkish designers. Yet we should note that the finding does not necessarily imply the level of designers' personal design knowledge. The diversity of parameters in the British context should result from the already established tradition of design control and guidance based on an advanced comprehension of urban form (Yeang, 2000; Cowan, 2002). In the Netherlands, the design control system is not based on a particular set of metric parameters as standard rules, but on design concepts (Aarts and Horne, 2012, 77), which are not necessarily metrical. On the contrary, Turkish designers are rather restricted by the few standard parameters

Figure 4. The form concepts specified within the reviewed urban projects from the UK (top), the Netherlands (middle) and Turkey (bottom). The weighted visual representation of the terms is based on their calculated frequency in use. **Table 10.** The main morphological parameters involved in the sampling design projects from the UK, the Netherlands and Turkey. The numbers in parenthesis indicate the number of entries recorded in the examination of the project reports and interviews.

The UK	<i>Dimension</i> -plot-, <i>size</i> (*2) –building and block-, <i>grain</i> (*3), <i>scale</i> (*3) – of building units-, <i>area</i> –housing unit-, <i>density</i> (*4) –of dwelling units-, <i>massing</i> (*2), <i>height</i> (*4) –building-, <i>surface</i> –ground treatment-, <i>distance</i> (*3)–walking-, <i>orientation</i> (*4), <i>proportion</i> –in street sections-, <i>figure and ground</i> , <i>angle</i> –roof-, <i>enclosure</i> (*2), <i>volume</i> –building
The NL	<i>orientation</i> (*5), <i>height</i> (*5), <i>density</i> (*3) -of dwelling units-, <i>distance</i> –between the junctions and/or buildings-, <i>width</i> –of the street profile -, <i>alignment, size</i> –of the building blocks-, <i>grain</i> –of the building tissue-, <i>length</i> (*2) –of the adjacent facades-
TR	<i>plot size, height</i> -maximum-, <i>building size, FAR</i> (*3), <i>figure and ground, distance</i> –between the buildings-, <i>orientation</i> (*5), <i>density</i> (*4) – dwelling unit, <i>area</i> –green

stated in development bylaws. Thus for both cases, the lesser degree of (metrical) conceptualisation of urban form is reasonable.

However, the importance of the issue mainly results from the fact that the morphological parameters utilised in design potentially lend themselves to urban coding as a rule-based description of form components (Carmona et al., 2006). That implies that an explication of an image-like design solution by metric parameters has potentially provided a flexible and generic control of urban form by coding.

The preliminary phases of design

How designers build up the solution space before synthesising their design idea is a key question on design thinking both in general theory (Hillier et al., 1972; Asimov, 1962; Maver, 1970; Lawson, 1980) and in urbanism (Shirvani, 1985; Moughtin et al., 1999; Çalışkan, 2012). From this perspective, asking designers about the preliminary acts in their design process, the research has received a mixed pattern of feedback from which it could still be possible to draw some general conclusions (**Figure 5**).

Most often, designers pursue various preparatory tasks before designing. In all cases, visual observation represents an essential part of the early process. Despite being expected to have a central role as the preliminary phases of urban design (Shirvani, 1985), survey and analysis apparently do not occupy an indispensable position in the designer's search for the problem statement and conjectural solution in urban design. Quite a few designers from the Turkish and the British teams mentioned the actual application of survey in design process. Nonetheless, all the design teams



Figure 5. The preliminary phases in urban design process and the ratios corresponding to their actual use in practice.

highlighted workshops with stakeholders as an effective tool to reveal underlying third-party requirements in the way of formulating the design solution(s). The Dutch designers applying the use of a survey (before design synthesis) confirmed that a crucial part of the surveys—i.e. traffic modelling, geomatic demographic analyses—was usually provided by the local planning agency. The availability of an already collected data set enables them to focus on the solution-oriented part of the design process, which is principally required by the stakeholders. Consequently, one could support the idea that in accordance with its conjecture-led cognitive nature (Hillier and Leaman, 1974), analytical work in urban design practice does not represent the first and foremost phase in urban design thinking (Çalışkan, 2012). Instead, analytical thinking runs in parallel with the other consecutive steps -i.e. conjecturing, modelling and testing- in design.

The levels of abstraction in design

Design is performed in an abstract medium separate from but essentially corresponding to physical reality (Marshall and Çalışkan, 2011: 415). This is mainly because the designer cannot fully control all the variables and parameters of design. Therefore, (s)he makes use of abstraction, as purposeful reduction of (visual) information to manage the complexity of design process. However, abstraction is not pursued in a single way in design. It entails different levels. We can elaborate the point with reference to the original conceptualisation of Marshall (2005, 167). Accordingly, there are three levels of abstraction involved in design: "composition" implying the observed geometric features of the form (i.e. area, length, angle, orientation), "configuration" revealing the structural properties of the form (i.e. linkages, intersections, depth) and "constitution" representing the elementary typology and hierarchy relations at the most abstract level (Marshall, 2005, 167).

On this basis, the ultimate degree at which the reviewed design work pursued has been specified to understand the prevailing level of abstraction in urban design (**Table 11**). As seen in the diagram, for almost all the cases, *configurative* thinking is lacking in the design process. Though all the designers present design solutions at the *compositional* level through its pictorial effect in representation, quite a few projects have been

	UK	NL	TR
composition	4	3	2
	-	-	1
I ∝ ∠ constitution	1	2	2

Table 11. Levels of abstraction in design. Visuals adapted from Marshall, 2005.



Figure 6. A focused view on a design process: The successive moves in design comprise a series of shifts in the level of abstraction. –the competition entry by D. Çimen and S. Erten (2005)- (By courtesy of *SekizArtı Mimarlık ve Kentsel Tasarım*, 2010) **10.** Despite its ever-growing use in spatial research, one could consider the limited use of Space Syntax, the tool for structural analysis, in the contemporary design practice from this point of view.

Figure 7. Design at the level of constitution

(below). (By courtesy of Department of Urban Development, Project Office Almere, 2005; PALMBOUT Urban Landscapes, 2010.)

by specifying the design rules on urban

elements (above) and correspondent design compositions according to the rules

indicated as an example of the "constitutional" level of abstraction. Within those projects, a new building typology, the rules of urban components and their necessary relations are the main design outcome, rather than the final image of the whole design composition. In this context, the lack of configurational abstraction in the projects can be explained by the lack of interest to the structural aspects in practice, in which the developers and planning agencies often demand image-like compositional blueprints or operational design rules and codes from the designers (10).

Yet in any case, different levels of abstractions are intermingled with each other during the design process. As clearly observed in one of the well-documented design works below, dynamic iteration between the abstraction levels is intrinsic to urban design thinking. (**Figure 6**).

Depending on the amount of (visual) information received from the designers in the study, it is seen that some designers use abstraction to explicate the already designed form with visual codes and symbols, whereas others use abstraction as a tool for synthesising the form without necessarily presenting its outcomes in a final design document (**Figure** 7, top right). While the former method of abstraction is used for external communication (**Figure** 7, left column), the latter is essentially an internal instrument used during the individual design operation (**Figure** 7, top right).

With respect to the question of an enhanced and explicit relationship between morphology and design (Çalışkan and Marshall, 2011), this point could be regarded as critical.



	UK	NL	TR
Volumetric block form	-	-	3
Building on plot	-	-	2
Landscaping	1	1	-
Architectural detailing	2	1	-
Materialization	2	3	-

Table 12. The number of the design groups plotted according the specific level of detail at which their projects are defined.

The levels of detail at which the design projects are defined

The true scale of intervention (or control) in urban design is an enduring question in theory (Lang, 1994, 17; Erickson et al. 2001, 5). The question directly identifies the level of detail at which the designers tend to specify the design solution, whether as a generic structure or a fully detailed and materialised composition. To see the actual situation in practice, the author analysed the reviewed projects and plotted them according to the five types of detailing (**Table 12**).

In the table, it is possible to see a clear distinction between the Turkish designers and the other design teams compared. The examined projects from Turkey are mostly limited to generic statements on building and block layouts. Nonetheless, this point should not be simply considered a matter of individual design thinking. The scheme does also indicate the actual level of expectation from an urban project in terms of the design details required by the project owners and public agencies in these countries. In this regard, unlike the UK and the Netherlands, the issues of landscaping and materialisation within a development project in Turkey is usually left to partial implementation projects not to be controlled by urban design in a broader context.

Generation of alternative solutions in design

Realised in different forms, the generation of alternative solutions is an intrinsic operation in design (Liu et al., 2003). Yet, although it is generally considered an essential part of the design process, an explicit definition of alternative schemes is not always the case in design practice. The findings of the survey on this issue support this point (**Table 13**).

When we look at the distribution of the numbers of designers who produce alternatives and those who create a final scheme without generating any alternative solution, it is seen that designing by alternative is not always applied in practice. It is observed that alternative thinking in design is not taken as a cognitive tool to make design synthesis within the individual design domain. Instead, it might be utilised as a communication tool to enhance the original design argumentation either against the external stakeholders or within the (design) group itself (**11**) (**Figure 8**).

In the former case in the illustrated example the designers utilise alternative schemes as an instrument to sway stakeholders and justify their original idea against other possible solutions. In the latter case (**Figure** 7), alternatives are generated mainly to elaborate the initial design idea

called "recognition-primed decision". According to the model, the experts in many domains of decision making tend to evaluate the faced situation against the first alternative mentally simulated -rather than trying out different options-. If the alternative action seems fit to the problemsituation, then it is selected. If not, it is modified till another plausible option is found more acceptable. The finding of our research could be considered within this cognitive framework.

11. In his seminal book on human rationality.

Kahneman (2011, 236-7) describes the usual

phenomenon of decision making with an

intrinsic adherence to the plausible option which is considered first, with the model

Table 13. The number of design teams that generate or do not generate alternative schemes in design.

	UK	NL	TR
\checkmark	2	1	3
×	3	4	2



Figure 8. Explicit and implicit alternation in design: The alternatives of urban layout produced for a clear argumentation with the project owner (above) and consecutive alternatives for the design composition drawn for the internal discussions within the design team. (By courtesy of *BC Kentsel Tasarım ye Mimarlık*, 2011.) collectively. This example essentially illustrates the emergent nature of design as well (Batty, 2008).

Use of precedent in design

Precedential knowledge is fundamental in design thinking. As Tzonis (1990) argues, exploitation of precedents is a fruitful source to achieve novel solutions in design. Likewise Lynch (1981, 289) asserts that "no one creates form without precedent". This necessary connection between precedence and design directs from the fact that existing building elements and early solutions play a role as necessary input for practical design knowledge (Colquhoun, 1969). Since finding a novel solution within an ill-defined problem space of planning (Rittel and Webber, 1973) is a difficult task in its own right, making use of precedence can be considered as a kind of support system to cope with complexity in spatial design.

Then the question put by the research is about whether (urban) designers utilise precedence in a systemic, explicit way, despite the strong theoretical assumptions on its implicit use in design thinking (**Table 14**).

Table 14. The number of design teams that explicitly use knowledge of precedent in design.

	UK	NL	TR
Number of the designers / teams	5	5	2
explicitly referring the precedents		0	-

	UK	NL	TR
Reapplication of an applied model in a different context	1	1	1
Exemplifying the desired image of the already specified design form	1	1	-
Reproduction of the underlying idea -the design principle or rule- of the precedent	3	3	-
Falsification of an existing model via an alternative design idea	-	-	1

As seen in the table above, argumentation concerning design solutions with reference to relevant successful applications adopted in different contexts is not a common attitude in design practice in the Turkish context. However, making use of design precedents by reference images and generic descriptions is seen as a standard method in the contemporary design practice of the British and Dutch designers. As it becomes more internationalised, we can expect contemporary urban design to rely more on precedential knowledge of good practices through growing professional networks.

At that point, the issue of ways to use precedence in design gains importance. Accordingly, the four types of utilising design precedence have been specified in the survey (**Table 15**).

As seen in survey results, the majority of designers using precedents in their design perceive the referred models as real cases exemplifying design principles applied in their own work. Therefore, rather than using precedence as a creative source of inspiration, the designers tend to introduce it to justify and empower their already established design idea. Moreover, a critical outlook on eminent examples (within the given design theme) does not appear to be an established attitude in urban design practice.

"Type" in design

Like "precedent", "type" (together with 'typology') is one of the most frequent terms used in the common terminology of spatial design. As shared knowledge of the social act of building (Gauthier, 2005), "type" informs singular designs with the codes of spatial organisation (Habraken, 1985, 24–27). As the principle of formal composition, type offers a combination of various systems entailing spatial, material and/or stylistic properties. It enables designers to communicate around the common themes on space and form (Habraken, 1987, 1988). From a cognitive perspective, typological thinking is crucial to design. This is because of the nature of design thinking, which to a large extent relies on the existing catalogue of types due to their already proven performance (Colquhoun, 1969; Jones, 2001). Through common forms and patterns, the use of type is a kind of comfort zone for designers. Creativity, in this context, lies in the selection of the relevant attributes of the certain types and novel combinations of them in new design solution(s).

What do designers truly mean by "type"? How do they conceive "typology" in practice? The questions could be answered with reference to the early distinction made between "type" and "model" originally made by Quatremère de Quincy (1778), the French thinker. According to Quincy, type represents the idea of en element, not the image of a thing to copy or

Table 15. The ways to use precedence in design.

Table 16. The number of designers plotted according to differing perceptions of the concept "type" in design practice.

Table 17. The number of designers plotted	
according to the actual ways of utilising	
'type" in design.	

'Type' as;	UK	NL	TR
a model to be replicated	4	3	3
a generic rule of form composition	1	2	2

	UK	NL	TR
Proposing new type(s)	2	-	2
Reapplying the existing ones	3	5	3

imitate, whereas a model is a concrete image to replicate, rather than the generic rule of a composition. On the basis of this distinction, we see that there is no common consent on the concept within practical urban design (**Table 16**).

The use of "type" in the reviewed design projects is mostly characterised as the form of a "model" to be replicated rather than a generic design rule to be employed within different forms in different contexts. In this context, for instance, the notion of "courtyard housing" in practice usually implies a very concrete image, which is replicated in standard building forms, rather than an abstract rule set that would be, in turn, subject to distinct compositional interpretations by design (**12**). This point is supported by complementary findings as well (**Table 17**).



12. Such a perception could be seen as the major obstacle to introduce the idea of type as a generic and generative morphological design tool in urbanism (Kropf, 1995).

Figure 9. Reliance on the same local/national building typologies in the British (above) and Dutch (below) contexts. (By courtesy of *Urban Initiatives*, 2010; *Halcrow*, 2010; *BGSV*, 2011; *Palmbout Urban Landscapes*, 2010.)

In the sampling projects examined, the concept is mostly employed to instantiate the existing national/local building and block typologies rather than transforming them with a novel form-compositions (**Figure 9**).

Then again, it is worth to note that such a non-innovative use of 'type' in urban design is not completely a cognitive issue. In a broad context, the adherence of developers to standard building types in the speculative housing market -rather than facing the challenge of introducing new typologies (Carmona, 2001, 116)- is an actual factor making designers react accordingly in practice.

The tools to control forms and patterns

The major task in urban design is devising the tools to control the constituent elements of urban form. The control tools, in this sense, could be classified in two groups: The ones serving for the organisation of solution space within individual design process, and the ones providing the necessary basis for the correspondent (partial) design acts made by others within the collective generation of urban form. While the former type internally operates within the cognitive domain, the latter is more used for external communication in design.

For internal control of design form, four basic organisational tools are specified in the study: generic structural grid, connecting force lines, subdivisional zones and critical (knitting) details. Specific selection of tools could eventually influence the design style. For instance, while the



Figure 10. The major tools of controlling form in spatial design as exemplified in some sampling design projects reviewed. (By courtesy of *SekizArtt Architecture and Urban Design*, 2011; *Kuiper Compagnons*, 2010; *PRP Architects*, 2010; *Palmbout Urban Landscapes*, 2010.)

subdivisional-zones

critical knitting-details

13. Another reason for the dominance of this method in design would be that the contemporary British urbanism is still keen on so-called 'organic' form-language, which could be created by neither a regular gridlayout nor the force-lines imposing strict spatial geometries. -After: the personal interview with A. Stones, a senior urban designer and planning consultant, in 3rd of June 2010, Kelvedon, Essex, the UK.

design based on "structural grid" tends to create more connected patterns, compositional unity is graphically ensured by "force lines". Likewise, "zoning" could be used for creating character areas, while "critical (knitting) details" would steer a kind of node-system for spatial legibility (Figure 10).

In this framework, one could claim that the selection of control tools corresponds to a particular typomorphology, which is to a certain extend conditioned by the external factors involved (i.e. market preferences, leading design paradigms or the professional background of the teams etc.) in practice. Table 18, in this regard, would provide a clue on this point (Table 18).

As seen in the table, all of the British designers in the analysis exemplify the use of subdivisional zoning in design, by initially designating sub-regions and articulating the design forms accordingly. This can be seen as a result of the settled idea in the UK of creating "character areas" to strengthen urban identity by design (Hall, 1997, Yeang, 2000, 40) (13). In the Turkish case, it is observed that designers with a planning background are keen on using subdivision zones in their design. This could result from the common practice in development planning, which is exclusively based on zoning by designating urban blocks called "building islands". Finally, in the Dutch case there is almost a homogenous distribution observed. This could be explained by the fact that contemporary Dutch urbanism performs more based on abstract design concepts than formal styles, as pointed out before.

Finally, with regards to external formal control, the survey specified the three types of tools in practice, namely blueprint, design codes and guidelines (Table 19).

The distribution of types of control tools depicted above reflects the type of (public) design control in the respective countries. As seen in Table 19, over-reliance on blueprints is obvious within Turkish planning system. In the British and the Dutch case, though all the teams ultimately created a plan layout as the final design scheme, they present a set of codes or guidelines as the main product of design (Figure 11).

In this sense, while the plan provides a general morphological framework, detailed form articulations are left to the next phases of the process. This finding is consistent with the actual trend in which the conventional idea of "design by blueprint" has evolved into "design by codes" (and/or by scenarios) in the two countries (CABE, 2005; Aarts and Horne, 2012, 77, 330). This approach potentially yields a kind of structured variation and flexibility in collective urban form.

	UK	NL	TR
Generic structural grid	-	1	1
Force lines	-	1	2
Subdivisional zones	5	2	2
Critical (knitting) details	-	1	-

Table 18. Major organisational (cognitive) tools to control designed urban form and the distribution of their use within the groups.

	UK	NL	TR
Blueprint	-	-	4
Codes	3	3	1
Guidelines	2	2	-

Table 19. The tools for the external control of urban form



Figure 11. Extracts from two sampling project reports: the typical method of controlling urban form in the Netherlands: the codes (left) and guidelines (right) accompanied by a plan scheme. (By courtesy of *BGSV*, 2008; *Palmbout Urban Landscapes*, 2010.)

Description of the design form

Design is essentially a non-discursive phenomenon in which the designers cannot rationally describe their (configurational) moves and intentions through explicit terms and concepts (Hillier, 1996, 3). Nevertheless, comprehensible and effective description of the final design form is crucial for communicating the idea to the third parties especially in the review process. Since sufficient clarity of the design idea in order to be understood by all stakeholders is assumed to enhance the participatory processes in planning (Lynch, 1981, 287), the quality of design description entails a particular consideration in urban design practice.

From this perspective, within the limits of the current research, the author suggests four key quality indicators to be discussed through a series of questions as follows:

Is the Overall Form Defined in Phases of Development and/or Transformation?

Description of the final design form in phases is a sign of strategic thinking in design. Envisioning the transformation of an area in terms of the successive interventions to be initiated in time basically enables other people to conceive static (but usually complicated) fabrics through simple (smaller) operational pieces. Then phasing brings temporal dimension in form in the way of better communication in design (**Figure 12**).



Figure 12. The extracts from a sampling project report: the overall form of the new town is defined in several phases (By courtesy of *LDA Design*, 2008: 46–47).

14. Borrowing the analogical relation claimed by Kropf (2011) between urban design and craftsmanship, we can expand the analogy to cover design description in addition to analytical design works, as originally argued.

15. The cautions direct from the point that realistic render-like illustrations in design projects would involve some incidental details which would suppress the possible interpretations and variants to be realised in design guidance. See: Carmona et. al. 2006: 226-27

16. In their article, Whistler and Reed (1994) discuss the townscape tradition, which was originally established by Cullen (1961), as a philosophy of urban design.

Figure 13. The drawings depicting the image of the designed urban form: an eye-level perspective makes a clear sense about the scale of designed urban space (left) and an elevated perspective illustrates the intended sense of approach to the designed edge of the city (By courtesy of *Atelier Dutch BV*, 2010; *John Phillips*, *LDA Design*, 2010).

	UK	NL	TR
\checkmark	4	4	-
×	1	1	5

The survey results on the subject displays a clear picture through the different levels of using phases in design description (**Table 20**).

Though it is an essential tool in British and the Dutch design practice, phasing has not been found to be a part of the design description in the reviewed projects from Turkey. This apparently indicates the lack of a timebased perspective for the idea of designing urban form in contemporary urbanism in Turkey, where the static language of master planning still prevails in practice (Ünlü, 2011).

Is Urban Image Illustrated Along With the Designed Urban Morphology?

Considering the intense use of means of visualisation such as artist impressions, perspective sketches, renders and (solid) models in urban design practice, one could easily recognise the enduring tradition of craftsmanship in the field (14). Still bearing the concerns of the risk of founding communication in physical planning on the dominancy of visual language (15) (Carmona et al., 2006, 226), one could also claim the fundamental use of representational drawing in expressing the design idea in a flexible way, allowing for multiple interpretations and inspirations (Laseu, 2001).

Illustration of the design form, in this sense, is not only instrumental for convincing people of the idea suggested, but also for testing space quality to be perceived with the designed morphology. The availability of urban images showing those who will potentially enjoy and utilise the designed spaces is taken as a quality factor providing an extra insight on design.

Reviewing the sampling projects with regard to the currency of the visual representation of the designed urban space, we see a similar pattern of distribution to that observed previously (**Table 21**).

Mostly drafting images illustrating the streets and spaces within the designed urban fabric—especially at eye-level perspectives depicting the characteristic details envisaged—the British and the Dutch designers basically demonstrate the ongoing influence of the townscape tradition in European urbanism (16) (Figure 13). This approach is not observed in the sampled design projects from Turkey. Underscoring the laborious process



Table 21. The number of design teamsillustrating and not illustrating the spatialimage of designed urban form.

Table 22. The number of design teams defining and not defining possible activity patterns to emerge in the designed urban form.

17. User-oriented approach to urban design was mainly defined by the prominent works of Gehl (1971), Alexander et. al. (1977) and Rapoport (1977).

	UK	NL	TR
\checkmark	3	3	1
×	2	2	4

	UK	NL	TR
\checkmark	3	3	1
×	2	2	4

for design illustration, we should reiterate the former finding about the short average project periods in Turkey (**Table 5**).

Are Possible Activity Patterns to Emerge Within the Designed Physical Form Envisaged?

In addition to the description of an urban image involving people in space, a systematic description of the possible spatial activities conditioned by the design structure is a key task in urbanism (Gehl, 2010). Due to the strong emphasis of critical urban design theory on the necessary relation between people and space (17), the contemporary conception of urban design in the literature is strongly influenced by the human-centred approach. Thus the relevance of the perspective in practice is another question raised by the study. The presence of activity-based design descriptions made in the reviewed projects is examined (**Table 22**).

As seen in the table, unlike its Dutch and British counterparts, current urban design practice in Turkey has yet to develop a user-responsive approach to physical planning and design. The lack of systemic design guidance that would provide a certain thematic framework for humanoriented design approaches (i.e. pedestrians, children and the elderly) could be taken as the main reason for the result revealed by the current practice in Turkey.

Are Quality Standards and Norms Preliminarily Defined in the Design of Urban Form?

Beside the official norms and standards guiding design solutions, designers can set their own design norms in accordance with an individual design perspective. The preliminarily defined design norms and standards to be eventually tested against the final design solution could be considered a positive factor for the transparency of any design work. Especially in urbanism, in which the design review processes comprise various stakeholders with different interests, clarification of norms at early stages of the process potentially ensures an effective public assessment. By means of an explicit formulation of the preliminary norms (i.e. maximum walking distances for accessibility, maximum block size for fine grain), people can assess the performance of the proposed solution(s) in terms of the initial design criteria.

In this framework, it is not possible to claim that the formulation of the preliminary norms is a common practice in either the Dutch or the Turkish

23. The number of design teams	
ng and not defining preliminary design	
and standards.	

Table definin norms

	UK	NL	TR
\checkmark	3	1	-
×	2	4	5

18. Involving nineteen case studies in international context, Loew ed. (2012) provides an updated and comprehensive review on the issue.

19. There is no doubt that for a clear argumentation on the issue, there are more cross-disciplinary researches (for instance between architecture, industrial design and urban design) needed.

context. However, in the British case, the tendency to develop a measurable normative approach to design (especially with a special emphasis on urban density and accessibility) is evident. This could be taken as a particular achievement of the design policies and guidance in the UK under the banner of 'the urban renaissance' since the mid-1990s (Urban Task Force, 1999, DETR and CABE, 2000, Punter, 2010).

CONCLUSION

As widely argued, a universal definition of urban design is currently lacking (Schurch, 1999; Marshall and Çalışkan, 2011; Loew, 2012). In this context, as argued by (Loew, 2012, 326), "urban design is what practitioners make of it." This point makes the researches on actual practice crucial for a precise theory of urban design. The questions of the scale(s) of operation, types of stakeholders and the main concerns involved in design process (Loew, 2012) represent the principles issues that should be discussed in this framework. From this perspective, this research tended to provide a holistic view of the subject on a comparative basis.

Admittedly, under specific combinations of social, economic and political dynamics, urban design is not performed identically through different contexts (**18**). Each unique combination ultimately ends up with a characteristic typology of urban form shaped within the settled codes of professional conduct (**Figure 13**). Yet considering the universality of design thinking in many cognitive respects (Rowe, 1987; Lawson, 1980), this paper argues that urban designers work through similar patterns of activity within their creative processes.

This assumption led the author to compare different design applications within the same framework. The results of the survey presented so far have provided us with a certain set of aspects on which the designers mostly perform similarly despite the contextual discrepancies encountered. Accordingly, the common aspects in performing urban design could be cited as follows:

- The multiple nature of the design environment (in terms of the variety of stakeholders and external constraints),
- The non-priority (and decentralised) position of analysis in design,
- A characteristic mode of abstraction by which configurative (structural) representation of urban form is implicitly excluded,
- Generation of design alternatives in the use of effective (external) communication, rather than (internal) cognition,
- Reliance on existing types and the prevailing perception of 'type' as 'model'.

The common tendency of the designers to act in a certain manner upon these aspects (along with the corresponding skills) characterises urban design as a distinct profession in the presence of other design fields (19). Further comparative studies would probably show that some of the aspects, such as the complex (external) design environment and the central role of typology and abstraction in design (as a tool to manage complexity), essentially differentiate urban design from other design disciplines like architecture. The revealed points of distinction within actual practice, on the other hand, could be given as follow:

- The degree of richness in design conception in terms of the amount and scope of the principles, concepts and parameters involved,
- The level of detail and scale at which the designer tends to define design solutions,
- Active use of precedent whether in the generation of design form and patterns or in design description and argumentation,
- Selection of the type of organisational (cognitive) and external tools to control designed urban form,
- Availability of the quality factors involved in ultimate description of design:
 - o use of phasing,
 - visual representation of the image of the designed urban morphology,
 - envisioning possible activity patterns conditioned by form and space,
 - explicit definition of preliminary norms by design that would potentially increase the effectiveness of design review.

Looking at the specified issues closer, this research argues that the source of divergences on those aspects is mainly contextual in practice. For instance, it is clearly seen that the selection of guiding principles and design concepts are highly conditioned by prevailing issues within national planning contexts. This point per se could indicate that design cognition in urbanism could not be examined independently from the factor of the external design environment. Urban designers rarely come up with original and novel design notions in practice. This basically differentiates urban design from architecture in which designers are usually much freer to introduce their own design conceptions depending on the flexibility desired by the project owner. The room for creativity for the designer in urbanism, thus, would seem to stand in finding innovative (physical) solutions responsive to concepts collectively defined in a broader context.

More specifically, it is also revealed that there are many aspects that would be shared by the designers from two different contexts while, at the same time, they have no relevance in another (third) context. Such recognised patterns of internal clustering have been recorded mostly in the way of clear resemblance between the Dutch and the British design groups mainly on key issues such as quality of design description, use of precedence and form control. In addition to the underlying effect of cultural similarities within these countries, in general, this point could be explained by the fact that professional interaction and knowledge exchange in the European Union (EU), in which professionals have permission to work in all member counties, is much more likely for the western Europeans. Moreover, the professionals from Turkey are highly excluded from such a professional network due to the current official status of the country within the Union (**20**) If more country cases were involved, the survey would have probably revealed different clustering patterns within the findings, i.e. some other

^{20.} Since 1999, Turkey is one of the candidate countries for EU accession. Therefore it is officially excluded from the free movement zone of the union.

close professional networks like Spain and Latin America or Australia and other Pacific countries (Loew, 2012).

Nevertheless, findings on disparities in quality factors (e.g. inherent conceptual capacity of the designers or application of some advanced tools and techniques) should not allow us to draw easy conclusions on the levels of competency of designers in basic skills and knowledge. Instead, the author addresses the material conditions (i.e. the average project times, budget and staff capacity) as objective factors influencing the individual performance of designers. However, the results of this kind of practical survey could still suggest a concrete basis to improve the design quality through evaluating settled conduct in the actual design processes. This would provide an alternative way to focusing merely on the outcome in the search for higher quality in urban design. In this regard, the analysis is expected to provide a general framework to be updated by further researches. The author, in this sense, recognizes inadequacy of such a comprehensive research for the in-depth understanding of the individual (cognitive) domain of designers. Accordingly, in order to elaborate a holistic view of the practical knowledge and cognition in urban design, future studies would focus on the singular specific aspects discussed within the proposed general framework.

BIBLIOGRAPHY

- AARTS, M., HORNE, J. VAN., (2012) The Netherlands, *Urban Design Practice: An International Review*, ed. S. Loew, Urban Design Group, London; 64-79.
- ALEXANDER, C. (1966) A City is not a Tree, Design (206) 46-55.
- ALEXANDER, C., ISHIKAWA, S., SILVERSTEIN, M., JACOBSON, M. (1977) A Pattern Language: Towns, Buildings, Construction, Oxford University Press, New York.
- ALEXANDER, C., Neis, H., Anninou, A., King, I. (1987) A New Theory of Urban Design, Oxford University Press, New York
- ASIMOV, M. (1962) Introduction to Design, Englewood Cliffs, New Jersey.
- BARNETT, J. (1974) Urban Design As Public Policy: Practical Methods for Improving Cities, Architectural Record Books, New York.
- BATTY, M. (2008) Design as a Growth Process Represented Through GIS, *Spatial Concepts in GIS and Design*, Santa Barbara. [http://ncgia.ucsb. edu/ projects/scdg/docs/position/Batty-position-paper.pdf] Access date 06.2012.
- BENTLEY, I., ALCOCK, A., MURRAIN, P., MCGLYNN, S., SMITH, G. (1985) *Responsive Environments: A Manual for Designers*, Architectural Press, London.
- CABE (2005) *Design Coding: Testing Its Use in England*, Commission for Architecture and the Built Environment, London.
- CABE (2006) *Design review: How CABE Evaluates Quality,* Ernest Bond Printing Ltd, London.
- ÇALISKAN, O. (2012) Design Thinking in Urbanism: Learning from the Designers, *Urban Design International* (17) 296.

- ÇALISKAN, O., MARSHALL, S. (2011) Urban Morphology and Design: Introduction, *Built Environment* 37(4) 381-92.
- CAMMEN H. VAN DER., KLERK, L. DE, DEKKER, G., WITSEN P.P. (2013) The Self-Made Land: Culture and Evolution of Urban and Regional Planning in The Netherlands, Publisher Lannoo NV, Tielt.
- CARMONA, M. (2001) *Housing Design Quality: Through Policy, Guidance and Review,* Spon Press, London.
- CARMONA, M., MARSHALL, S., STEVENS, Q. (2006) 'Design Codes: Their Use and Potential', *Progress in Planning* (65) 209–289.
- CHRISTOPHER, B. (2013) British Design from 1948: Innovation in the Modern Age, V&A Publishing, London.
- COLQUHOUN, A. (1969) Typology and Design Method, *Perspecta* (12) 71-74.
- COWAN, R. (2002) Urban Design Guidance: Urban Design Frameworks, Development Briefs and Master Plans, Thomas Telford Ltd., London
- COWAN, R. (2008) A Framework for Urban Design Skills, [http://www. rudi.net/node/18992] Access date 11.2013.
- CULLEN, G. (1961) The Concise Townscape, Architectural Press, Oxford.
- DETR and CABE (2000) *By Design: Urban design in the planning system: towards better practice,* Department of the Environment, Transport and the Regions, London.
- ERICKSON, B., LLOYD-JONES, T. (2007) Design Problems, eds. M. Roberts, C. Greed, *Approaching Urban Design: The Design Process*, Pearson Education Limited, Harlow; 3-7.
- FEINBERG, J. (2011) Wordle, [http://www.wordle.net/] Access date 02.2012.
- GAUTHIER, P. (2005) 'Conceptualising the Social Construction of Urban and Architectural Forms Through the Typological Process', *Urban Morphology* 9(2) 83-93.
- GEHL, J. (1971 [1987]) *Life Between Buildings: Using Public Space*, Van Nostrand Reinhold, New York.
- GEHL, J. (2010) Cities for People, Island Press, Washington, DC.
- GÜNAY, B. (1999) *Urban Design is a Public Policy*, METU Faculty of Architecture Press, Ankara.
- GÜNAY, B. (2000) *Property Relations and Urban Space*, METU Faculty of Architecture Press, Ankara.
- HABRAKEN, N.J. (1985) *The Appearance of Form*, Awater Press, Cambridge MA.
- HABRAKEN, N.J. (1987) The Control of Complexity, Places 4(2) 3-15.
- HABRAKEN, N.J. (1988) Type as a Social Agreement, Seoul, Korea: Third Asian Congress of Architects, [http://www.habraken.com/html/ downloads/type_as_a_social_agreement.pdf] Access date 05.2012.
- HILLIER, B. (1996) Space is the Machine: A Configurational Theory of Architecture, Cambridge University Press, Cambridge.
- HILLIER, B., HANSON, J. (1984) *The Social Logic of Space*, Cambridge University Press, Cambridge.

- HILLIER, B., MUSGROVE, J., O'SULLIVAN, P. (1972) Knowledge and Design, *Environmental Design: Research and Practice Conference* ed. W.J. Mitchel, UCLA, Los Angeles; 29–32.
- JACOBS, J. (2000) 1961 The Death and Life of Great American Cities, Pimlico, London.
- JONES, T.L. (2001) The Design Process, Approaching Urban Design: The Design Process, eds. M. Roberts and C. Greed, Pearson Education Ltd, Harlow; 3-7.
- KAHNEMAN, D. (2011) Thinking Fast and Slow, Penguin Books, London.
- KROPF, K. (2011) Morphological Investigations: Cutting into the Substance of Form, *Built Environment* 37(4) 393-408.
- KROPF, K. S, (1995) Typological Zoning, *Typological Process and Design Theory*, ed. A. Petruccioli, Aga Khan Program for Islamic Architecture, Cambridge, MA; 127-40.
- LANG, J. (1994) *Urban Design: The American Experience*, Van Nostrand Reinhold, New York.
- LANG, J. (2005) *Urban Design: A Typology of Procedures and Products,* Architectural Press, Oxford.
- LANG, J. (2007) 1994 Urban Design as a Discipline and as a Profession, *The Urban Design Reader*, eds. M. Larice, E. Macdonald, Routledge, London; 461–78.
- LASEU, P. (2001) *Graphic Thinking for Architects and Designers,* John Wiley & Sons, New York.
- LAWSON, B. (2010) *How Designers Think: The Design Process Demystified,* Architectural Press, Oxford.
- LIU, Y.C, BLIGH, T., CHAKRABARTI, A. (2003) Towards An 'Ideal' Approach For Concept Generation, *Design Studies* 24(4) 341-55.
- LOEW, S. ed. (2012) *Urban Design Practice: An International Review*, Urban Design Group, London.
- LYNCH, K. (1981) Site Planning, The MIT Press, Cambridge MA.
- MARSHALL, S. (2005) Streets and Patterns, Spon Press, London.
- MARSHALL, S., ÇALISKAN, O. (2011) A Joint Framework for Urban Morphology and Design, *Built Environment* 37(4) 409-26.
- MAVER, T.W. (1970) Appraisal in the building design process, emerging methods, *Environmental Design and Planning*, ed. G. Moore, The MIT Press, Cambridge MA
- MOUGHTIN, C., Cuesta, R., Sarris, C. and Signoretta, P. (1999) Urban Design: Method and Techniques, Architectural Press, Oxford.
- PUNTER, J. (2010) *Urban Design and the British Urban Renaissance*, Routledge, London.
- RAPOPORT, A. (1977) Human Aspects Of Urban Form Towards a Man-Environment Approach to Urban Form and Design, Pergamon Press, Oxford
- ROWE, P.G. (1987) *Design Thinking*, The MIT Press, Cambridge MA.

- SALINGAROS, N. (2000 [2005]) Complexity and Urban Coherence, *Principles of Urban Structure*, ed. A. van Bilsen, Techne, Amsterdam; 83-114.
- SCHURCH, T.W. (1999) Reconsidering urban design: Thoughts about its definition and status as a field or profession, *Journal of Urban Design* 4(1) 5-28.
- SHIRVANI, H. (1985) *The Urban Design Process*, Van Nostrad Reinhold Company, New York.
- THE FORUM + INSTITUTE FOR URBAN DESIGN, [http://ffud.org/] Access date 05.2013
- THOMAS, M.N. (2008) Dutch Design: A History, Reaktion Books, London.
- ÜNLÜ, T. (2011) 'Towards the Conceptualization of Piecemeal Urban Transformation: The Case of Mersin, Turkey', *Built Environment* 33(4) 445-61.
- URBAN TASK FORCE (1999) *Towards an Urban Renaissance*, DETR/E & FN Spon, London.
- WAGNER, C. (2011) *Town Planning In The Netherlands* 1800–2000, NAI 010 Publishers, Rotterdam.
- WHISTLER W. M., REED, D. (1994) Townscape as a Philosophy of Urban Design, Urban Design Quarterly (52), [http://www.rudi.net/ books/13105] Access date 11.2013.
- YEANG, L.D. (2000) *Urban Design Compendium*, LD and ABA for English Partnerships, London.
- YOUNG, A. ed. (2010) *Manual for Streets 2: Wider Application of the Principles,* Department of Transport, London.

INTERVIEWS

- Dan Hill, on Scotswood Expo Masterplan, 26.10.2010, *Urban Initiatives*, London, the UK
- John Phillips, on 'Cambridge East' Project, 26.10.2010, *LDA Design*, London, the UK
- Natalia Trossero, on 'Carr Lodge, Doncaster' Project, 29.10.2010, John *Thompson & Partners*, London, the UK
- Jason King, on 'Grazhdanskiy Prospekt' Project, 27.10.2010, PRP Architects, London, the UK
- Schmidt Bob, on 'Ransome Road Master Plan', 28.10.2010, *Halcrow*, London, the UK
- Rob van der Velden, on 'Almere Stripheldenbuurt' Project, 26.11.2010 Atelier Dutch BV, Almere, the Netherlands
- Merel Bakker and Martın van Engelen on 'Waterrijk Boskoop' Project, 05.01.2011, *BGSV*, Rotterdam, the Netherlands
- Leonie Rupert, on 'Masterplan Kortenoord', 22.11.2010, *Palmbout Urban Landscapes*, Rotterdam, the Netherlands
- Hans Peter van Schooneveld, on 'Stad van de Zon' Project, 13.12.2010, *Kuiper Compagnons*, Rotterdam, the Netherlands

- Ria van Dijk, on 'EuropakwArtier' Project, 19.11.2010, Municipality of Almere, Department of Urban Development Project Office, the Netherlands,
- Devrim Çimen and Sertaç Erten, on 'İstanbul-Zeytinburnu' Project, 17.02.2011, Sekiz Artı Mimarlık ve Kentsel Tasarım, İstanbul, Turkey
- Banu Aksel, on 'Bahçesidir Toplu Konut Alanı' Project, 21.02.2011, BC Kentsel Tasarım ve Mimarlık, Ankara, Turkey
- Can Kubin and Zeynep Eraydın, on 'Kepezaltı-Santral' Project, 22.02.2011, PROMİM Çevre Düzenleme Kentsel Tasarım, Ankara, Turkey
- H. Oğuz Aldan, on Yeni İnegöl Project, 26.02.2011, H. Oğuz Aldan Şehir Planlama, Ankara, Turkey
- Figen Moran, on 'Adana-Yüreğir' Project, 24.02.2011, TOKI, Ankara, Turkey

Alındı: 01.08.2014; Son Metin: 23.12.2014

Anahtar Sözcükler: Kentsel tasarım kılgısı; tasarım düşüncesi; şehircilikte tasarım unsurları ve tasarım çevresi.

KENTSEL TASARIM EDİMİNİN TEMEL BOYUTLARI GÜNCEL KILGIYA ULUSLARARASI BİR BAKIŞ

ABD'de 1960'ların başında aynı adla (yüksek) lisans derecesi olarak tanımlanıp resmi eğitim programına dahil edilmesinden bu yana, kentsel tasarım birçok ülkede ciddi bir gelişme kaydederek bağımsız bir araştırma ve uygulama alanı olarak mesleki geçerliliğini kabul ettirmiştir. Bununla birlikte, kuram ve kılgıdaki görece yerleşik ve olgunlaşmış birikimine karşın, kentsel tasarımın araştırma ve uygulama alanları arasında etkili bir bütünleşmişlikten söz etmek güçtür. Bu durumun önde gelen nedenlerinden biri çağdaş kentsel tasarım kuramının genel anlamda meslek alanının güncel uygulamalarına, kendine özgü davranış kurallarına ve içkin (zımni) kılgısal bilgisine yeterince ilgi göstermemesidir. Bu bağlamda bu makale, farklı kültürel koşullarda kentsel tasarım kılgısının profesyonel alandaki ana unsurlarını anlamaya yönelik kapsayıcı ve karşılaştırmalı bir bakış açısı sunmayı amaçlamaktadır.

İngiltere, Hollanda ve Türkiye'den on beş kentsel tasarımcının ürün ve yaratım süreçlerini inceleyen karşılaştırmalı araştırma, tasarımcıların yalnızca içinde bulunduğu maddi koşulları değil; aynı zamanda tasarım sürecinde uygulamaya soktukları belli başlı bilişsel işleyiş unsurlarını da ele almaktadır. Bu çerçevede içsel ve dışsal dinamikler olarak tanımlanan bir dizi unsur (tasarım sürecine dahil olan aktörler, tasarıma yön veren kavram, ilke ve değişkenler vb.), kentsel tasarımı diğer tasarım disiplinleri karşısında ayırıcı niteliğini ortaya koyan etkenler olarak belirlenmekte ve tartışılmaktadır.

Bu bağlamda ilk olarak, incelenen tasarım gruplarının ortak kesitini veren genel bir giriş tanımı sonrasında (grup büyüklükleri, içsel/mesleki bileşim vb.) tasarımcıların mesleki alanını oluşturan dışsal unsurlar, tasarım sürecine katılan resmi kısıtlara, paydaş ve delegelere başvurarak tartışılmaktadır. Tasarım ekiplerinin temel nitelikleri ve çevresel koşularına yönelik genel görünüm ortaya konulduktan sonra makale, şehircilik uygulamasında tasarım düşüncesini biçimlendiren başlıca kavram ve araçlara odaklanmaktadır. Çözümsel inceleme, nihai tasarım şemalarının oluşturtulmasına kullanılan ve öncelikli olarak tasarımda iletişim süreçlerinin niteliğini etkileyen ortak yöntemlerini ele alan bölümle sonlandırılmaktadır.

İnceleme sonucu elde edilen bulgular ışığında makale temel olarak, kentsel tasarımcıların kılgısal süreçlerinde bir dizi ortak unsurun varlığını (var olan tipolojilere olan bağımlılık, tasarımda çözümlemeyi yorumlayış bicimi vb.) ve bunların söz konusu meslek alanını geniş mesleki bağlamı içerisinde ayrı bir yaratıcı eylem olarak özelleştirdiğini savlamaktadır. Aynı zamanda, güncel kılgıda saptanan ayrışma noktaları (tasarım düşüncesi içerisindeki kavramsallaştırmanın kapsamı, tasarım biçimini denetleme araçlarının çeşitliliği vb.) belirli bir tasarım kültürüne sahip farklı ülkelerdeki kentsel tasarım uygulamasını özgünleştiren unsurlar olarak tartışılmaktadır.

Makale ile yazar, kentsel tasarım kavrayışının altında yatan özgünlükleri belirlerken; dışsal unsurlar olarak tasarımcıların bireysel edimine etki eden meslek alanının içinde bulunduğu nesnel koşullara işaret etmektedir. Ortaya konulan bütüncül çerçeve ile aynı zamanda, tartışılan her bir boyutu gelecekte odak çözümlemelerle özel olarak geliştirebilecek çalışmaların yararlanacağı bir tür ortak altlığın sunulması amaçlanmaktadır.

OLGU ÇALISKAN; B.CRP, M.Sc., PhD

Received his bachelor in City and Regional Planning and MSc. in Urban Design from Middle East Technical University Faculty of Architecture (1998-2004). Earned his PhD degree in urbanism from Delft University of Technology (2013). Currently works as an assistant professor at Middle East Technical University. Major research interests include physical planning and design, urban morphology, urban design theory and method, and visualisation in urbanism. olgucaliskan@gmail.com, olgu@metu.edu.tr